

Remarks

SUMMARY

Reconsideration of the application is respectfully requested.

Claims 11-27, 29-31, and 34-37 have been rejected. Claims 11 and 17 have been amended. Accordingly, claims 11-27, 29-31, and 34-37 remain pending in the application.

Claim Rejections under 35 U.S.C. § 101

In “35 USC § 101,” on pages 2-3 of the above-identified Office Action, claims 11-27, 28-31, and 34-37 have been rejected for claiming non-statutory subject matter. On page 3, the Examiner asserts that the phrases "platform adaptation," "platform's execution of the workload," and "configure the platform" are all abstract concepts and have no practical application.

In response, Applicant previously provided reasons that "platform adaptation," "platform's execution of the workload," and "configure the platform" are all useful, concrete and tangible results, and thus provide the required practical application. These Reasons are reproduced below.

In “Response to Arguments”, pages 20-22 of the above-identified Office Action, the Examiner responded to the reasons reproduced below. The Examiner, referring to the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (hereinafter “Interim Guidelines”) for authority, stated that the rejected claims fail to recite a practical application, and thus are properly rejected under §101. The Examiner further quoted the reasons below as providing a number of candidate practical applications, including “improving performance”, and stated that the only explicit recitation of a similar practical application in the Specification is “enhancing.”

Applicant respectfully submits that the Interim Guidelines provide absolutely no requirement that the practical application be recited in the claims. Rather, the Interim Guidelines state that the invention must have a practical application, and that such an application should be mentioned in the Specification. As Applicant has previously argued in the reasons reproduced below, the claimed invention of claims 11, 17, et seq. has a number of practical applications. Even assuming for the sake of argument that some of those practical applications are not explicitly recited in the Specification, they are inherent in a method of platform adaptation. Further, as the Examiner acknowledges in the above-mentioned "Response to Arguments", Applicant explicitly recites the practical application of "enhancing" in the Specification. Thus, the claimed invention has a number of practical applications, and at least one of those applications is explicitly recited in the Specification. Under the Interim Guidelines, then, the claimed invention meets the requirements of §101. The Examiner's further requirement that the practical application be recited in the claims has absolutely no basis, not in the Interim Guidelines, not in MPEP, not in CFR, nor in statute. Accordingly, Applicant respectfully requests that the Examiner either provide the legal authority for the further requirement, or withdraw the rejections of claims 11-27, 28-31, and 34-37 under § 101.

Prior Remarks

The following are reasons provided by the Applicant in Applicant's November 20, 2006 Response for the patentability of the claimed invention under §101.

"The Examiner states that the final result of a claim must achieve or produce a useful, concrete, and tangible result. According to the Examiner, the question is not whether the operations taken to achieve the result are useful, tangible, and concrete, but whether the result itself is useful, concrete, and tangible. Applicants assume, then, that the phrases the Examiner rejects under §101 (recited above) are the Examiner's description of the final results of the claimed invention."

“Even assuming the Examiner is correct in his description of the final results of the rejected claims, platform adaptation, execution of a workload by a platform, and configuring a platform are all useful, concrete and tangible results.”

“The Examiner’s first phrase “platform adaptation,” which is not explicitly recited by any of the claims, seems to refer to the selection of configuration parameter values pre-selected for the platform to execute the reference workload. Such a final result, recited by claims 11, 21, and 27, is a platform adapted to operate based on configuration parameter values associated with a reference workload. As such, “platform adaptation” is equivalent to “configure the platform.” The real-world value of a configured/adapted platform can be immense. The entire purpose of configuring/adapting the platform is to improve performance. Improved platform performance can save companies and individuals time and resources. This result is useful, since it can substantially benefit the owners of the platform. It is concrete because it is a repeatable, predictable result of the claimed operations. And it is tangible because it can effect business decisions such as whether to buy additional platforms.”

“Execution of a workload by a platform, the second of the Examiner’s phrases, is precisely what computers do. Computers are platforms that execute sets of instructions over a time period (instructions executed over a time period is the definition of a workload – see below). It is indisputable that the operations of computers have real-world value. It is equally indisputable, then, that the execution of a workload by a platform has real-world value and thus constitutes a final result that is useful, concrete, and tangible.”

“As mentioned above, configuring a platform, the third of the Examiner’s phrases, is the same thing as platform adaptation, and is thus a final result that is useful, concrete, and tangible for the reasons given above.”

“Further, the Examiner notes that the rejected claims read on both statutory and non-statutory subject matter, and thus must be amended. The Examiner fails to note, however, any non-statutory subject matter that the claims read on.”

“Accordingly, Applicants respectfully request that the Examiner withdraw the §101 rejections of claims 11-35.”

Claim Rejections under 35 U.S.C. § 102

In “Claim Rejections – 35 USC § 102,” on page 5 of the above-identified final Office Action, claims 17-27, 29-31, 36, and 37 have been rejected as being anticipated by *Reinemann*, U.S. Patent Publication No. 2003/0115118 under 35 U.S.C. § 102(b).

Claims 21-23, 27, and 29-30

Applicants note that claim 11 has not been rejected as being anticipated by *Reinemann* under “Claim Rejections – 35 USC § 102.” The reason for this, according to the Examiner, is that “*Reinemann* fails to teach whether a workload executed or being executed by a platform resembles a reference workload” (see page 15 of the Office Action). Claims 21 and 27 also recite “whether a workload executed or being executed by a platform resembles a reference workload.” Thus, rejections of these claims under §102 is improper. Also, claims 22-23 and 29-30 depend from claims 21 and 27, and are thus also patentable under §102. Accordingly, Applicants respectfully request that the Examiner withdraw the §102 rejections of claims 21-23, 27, and 29-30.

In “Response to Arguments”, pages 22-23 of the above-identified Office Action, the Examiner states that *Reinemann* teaches a reference workload, and maintains the rejection. Applicant contended, however, that “*Reinemann* fails to teach ‘whether a workload executed or being executed by a platform resembles a reference workload.’”

This is a quote of the Examiner's own rejection of claim 11. Applicant's point was that claims 21 and 27 also recite the very same language that the Examiner acknowledges that Reinemann fails to teach. Thus, the rejections under §102 of claims 21 and 27 are necessarily improper. Further, claim 21 is claim 11 in apparatus form. A basic, facial comparison will readily verify this fact. Thus, if Reinemann does not anticipate claim 11, it also does not anticipate claim 21.

Claims 17-20, 24-26, 31, 36, and 37

Claim 17, as amended, recites "In a system, a method of operation comprising:
generating a lookup index to one or more sets of configuration parameter values, based at least in part on one or more performance events observed in associated with a platform's execution of a workload; and
selecting one of one or more pre-established sets of configuration parameter values, based at least in part on the generated lookup index, for application to configure the platform."

In contrast, Reinemann simply teaches the monitoring of resource utilization of a processor by collecting performance metrics and archiving them in a log file (Reinemann, paragraph [0011]). In addition to monitoring, Reinemann discloses a policy manager capable of applying policies based on the collected performance metrics, the policies dictating the sharing of resources among a network of processors.

Nothing in Reinemann discloses, expressly or inherently, "generating a lookup index to one or more sets of configuration parameter values." Configuration in Reinemann is driven by policies. Thus, only the policies of Reinemann can be taken as disclosing "configuration parameter values." Reinemann does not teach the generating

of a lookup index to policies, however. The only thing arguably reading upon an index disclosed by Reinemann is a time-stamp that may be archived with and capable of identifying performance metrics. Such performance metrics do not dictate a configuration, however, and thus cannot read on “configuration parameter values.” Accordingly, Reinemann simply does not teach or suggest, “generating a lookup index to one or more sets of configuration parameter values.”

In “Response to Arguments”, page 24 of the above-identified Office Action, the Examiner argues that the “collecting of account information” of Reinemann reads on “generating a lookup index” because both the index and the collected account information comprise values of performance metrics. Even assuming this to be true, however, the collected account information is not a lookup index because it does not point to anything other than itself. It is merely data, not data that points to “configuration parameter values.” For the collected account information to read on the lookup index, Reinemann would have to teach that the information points to “configuration parameter values” (which, in Reinemann, are the policy). The collected account information in Reinemann does not point to anything, including the policy, and thus cannot read on a generated look up index to one or more sets of configuration parameter values.

Accordingly, claim 17 is patentable over Reinemann.

Claims 24 and 31 recite limitations similar to those of claim 17, and are thus patentable over Reinemann for at least the same reasons. Accordingly, Reinemann does not anticipate claims 24 and 31.

Claims 18-20, 25-26, 36, and 37 depend from amended claims 17 and 24, incorporating their limitations. Accordingly, for at least the same reasons, Reinemann fails to anticipate claims 18-20, 25-26, 36, and 37.

Claim Rejections under 35 U.S.C. § 103

In “Claim Rejections – 35 USC § 103,” on pages 14-15 of the above-identified final Office Action, claims 11-16, 34, and 35 have been rejected as being unpatentable over *Reinemann*, and further in view of *Chiu*, U.S. Patent Publication No. 2002/0186658 under 35 U.S.C. § 103(a).

Claim 11 recites “In a system, a method of operation comprising:

determining whether a workload executed or being executed by a platform resembles a reference workload, based at least in part on one or more performance events observed from monitoring the platform’s execution of the workload; and

if the workload is determined to resemble the reference workload, performing a selected one of

selecting a set of one or more configuration parameter values pre-selected for the platform to execute the resembled reference workload, and

providing information about the determined resembled reference workload to facilitate the selection of the set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload.”

The present invention, as claimed in claim 11, teaches a method of determining whether a workload executed or being executed by a platform resembles a reference workload, and selecting a set of configuration parameter values pre-selected for a platform to execute the resembled reference workload. The selected set of

configuration parameter values are used to reconfigure the platform for optimal performance.

In contrast, Reinemann simply stands for a method and system of resource sharing among a network of processors, where a policy manager of a processor may decide to share one or more of its resources based on a resource utilization threshold set by a policy (Reinemann, paragraph [0012]). The only comparison necessary to achieve Reinemann's purpose - optimized resource utilization among the processors of the network - is between the performance of a system resource (such as memory utilization) and policy thresholds dictating whether the resource ought to be sharable.

The entire purpose of determining whether a workload resembles a reference workload is so that configuration parameter values associated with the reference workload can be selected to configure the platform. By providing the policy manager with configuration thresholds in the form of policies, the thresholds dictating the configuration of a processor/platform in the Reinemann network of processors, Reinemann teaches away from the necessity of any comparison of a workload to a reference workload. The policy manager already has the "configuration parameter values" (i.e., policy). Thus, there is no reason to determine a reference workload associated with the policy (which is likely why Reinemann does not mention any sort of "reference workload" associated with a policy).

The Examiner admits the above deficiency of Reinemann, and proposes Chiu as a cure for that deficiency. Chiu, however, simply does not teach or suggest "determining whether a workload executed or being executed by a platform resembles a reference workload." Instead, Chiu teaches selectively off-loading an appropriate amount of traffic from congested sub-regions of a network to more lightly loaded sub-regions of the network using Multiprotocol Label Switching (MPLS), thus permitting effective utilization of network resources (Chiu, paragraph [0006]). Even if one interprets an amount of network traffic as a "workload," Chiu does not discuss or suggest the comparison of such a "workload" to a "reference workload."

In “Response to Arguments”, page 26 of the above-identified Office Action, the Examiner equates the target parameter value ranges of the policy of Reinemann to the “reference workload” of claim 11. Applicant respectfully disagrees. As would be readily recognized by those skilled in the art, a workload is a set of instructions to be executed. Thus, as recited by claim 11, a known set of instructions (“reference workload”) is compared to a set of instructions being executed based on performance events associated with each set. In Reinemann, however, performance events are simply fit within target ranges of a policy. Thus, Reinemann teaches a different approach for determining configuration parameter values, and accordingly teaches away from a comparison of one workload to another. The end result of each of Reinemann and the invention of claim 11 may be the selection of configuration parameter values, but each teaches an entirely different method for determining the values.

Therefore, Reinemann and Chiu, individually or combined, failed to teach or suggest claim 11. Accordingly, claim 11 is patentable over Reinemann and Chiu, alone or in combination.

Claims 12-16, 34, and 35 depend from claim 11, incorporating its limitations. Accordingly, for at least the same reasons, claim 12-16, 34, and 35 are patentable over Reinemann and Chiu, alone or in combination.

Conclusion

Claims 11-27, 29-31, and 34-37 are believed to be in condition for allowance. Thus, a Notice of Allowance is earnestly solicited. Please contact the undersigned regarding any questions or concerns associated with the present matter. If any fees are due in connection with this paper, the Commissioner is authorized to charge Deposit Account 500393.

Respectfully submitted,
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